1: Coon E-5 (1926-1927) 1931 MX3 Rlf MX3



137 *riarz*, a cedar, growing very tall and straight. Its sweet-smelling wood is valued by carpenters and cabinet-makers.

[314] *amerzi*, another cedar, with very volatile reddish wood. Its pitch and resin are used as medicine.

*rkanus*, a similar tree, considered by the Riffians to be the female of the *amerzi*.

The cedars, generally known under the name of *thuya*, or *arbor vitae*, form the characteristic coniferous vegetation of North Africa.[1]

### Other Trees

[262] *rbejuh*, an evergreen oak, with edible acorns.

*tashta*, another species of oak, with inedible acorns.

*rbejuth n yirif*, the so-called pig-oak. Its acorns are eaten by wild boars, but not by men on account of their bitter taste. Justinard lists as oak *adren*, calling *abedjoud* the acorn.[2] The latter word is derived from the Arabic *el-bellut*, the difference in renderings being due, aside from different techniques in transcription, to my retention of the *r*, the berberization of the Arabic definite article, in the Riffian dialects. I have always heard it pronounced with the *r*. Hanoteau and Letourneau [3] identify five oaks in Algeria: *Quercus castaneaefolia C. A. Mey., Q. Mirbeckii Dr., Q. Ilex L., Q. Ilex var. Ballota*, and *Q. Suber L.*

[245] *adheman*, the hawthorne. This tree is used as a base for grafting pear and apple shoots. Hanoteau and Letourneau give *Crataegus Oxyacantha* (three varieties), *Cr. Azarolus*, and *Cr. monogyna* for Algeria.[4] Laoust identifies *Cr. Oxyacantha* in Morocco.[5]

[262] *asanu*, the arbute, or strawberry tree. Its fruit is eaten fresh, and also dried and put into bread; the wood is used in house construction. Laoust finds it in other parts of Morocco, and gives it the botanical name *Arbutus unedo*.[6]

[262 388] *fathis*, a large tree bearing a small red fruit, which is eaten. The ashes of its wood are mixed with water, in which grapes are washed before being set out to dry. These ashes are also used as soap in washing cloth. Westermarck [7] calls this the lentisk, *Pistacia lentiscus*.

*asemmur*, the wild olive. Its fruit is not eaten, but its wood is used in making spoons, ploughs, and other objects.

[245] *thasemmurth*, the female of the *asemmur*, smaller than the male. The male can be used for grafting domestic olives, but the female is never used for this purpose.

*sa'awiz*, a large tree with perennial foliage. It bears a seed containing a red liquid. The wood of this tree was formerly used for gunstocks.

*thaghieshth n wushun*, a species of wild walnut, called jackal-walnut.

*afesas*, perhaps a spurge-flax, or broom. It is a bush with a red flower, growing in valley bottoms. Laoust gives *Daphne Gnidium L.* for *walesaz*.[8] Hanoteau and Letourneau name three species, *Daphne oleoides Schreb., D. Gnidium L.*, and *D. Laureola L.*, for Algeria.[9] This plant has been mistaken by other botanists for an osier, on account of its extensive use in basketry.[10]

*thabgha*, a wild blackberry. Justinard affirms this designation.[11]

[1] Justinard, p. 159; Hanoteau and Letourneau, p. 69; el Bekri (tr. Macguckin de Slane), p. 15 n.
[2] Page 117. [3] Page 129. [4] Pages 48, 89. [5] Page 809.
[6] Pages 483–484, 519. [7] Edvard Westermarck, *Ritual and Belief in Morocco*, vol. II, p. 185.
[8] Pages 515–516. [9] Page 116. [10] Laoust, pp. 515–516. [11] Page 142.

1: Coon E-5 (1926-1927) 1931 MX3 Rif MX3



*ariyeri*, the oleander. This plant is important in the manufacture of magical concoctions. Laoust [1] and Justinard [2] support this identification.

*tuzselt*, a bush resembling a high-bush blueberry. It bears a red pod, like a rose-pod, which is eaten. Laoust [3] calls this *Fraxinus dimorpha*.

*aghanim*, a reed, used extensively in basket making. Laoust supports this identification.[4]

*tharugwith*, a bush with a red flower, much frequented by bees.

*zui*, a bush bearing a white flower, with peppery-tasting leaves. The latter are used as medicine for stomach-ache.

*r-knuafer*, a bush or low tree which produces a bud resembling a clove. The buds are put into tea as a spice, and are used as a stomach-ache cure for children.

*azir*, a bush the leaves of which are used in the brewing of a tea alleged to be beneficial in fever.

*izarahi*, forsythia. Women cut pieces of its stem and tie them in their belts to prevent boils. This identification is purely personal and lacks confirmation.

*thakhfa*, a wild rose, the pods of which are sometimes eaten in times of famine. Hanoteau and Letourneau [5] give *Rosa sempervirens* for the Kabyle *thaafert*.

Luxurious forests of conifers are said by the inhabitants of the country to have once covered most of the region, but today they are confined to the mountains of Beni Bu Nsar, Taghzuth, Beni Khennus, Beni Seddath, Ktama, Zarkut, and the upland reaches of Mtiwa. Patches of this forest remain on Mt. Kuin in Gzennaya, in parts of Beni Amart, at Aswil, where the Nekor passes from the Gzennaya into Beni Urriaghel, and on the crests of Beni Tuzin. The *taidha* grows chiefly in the Senhajan tribes, but the *thuya* is found not only there but also farther to the east, in Gzennaya and Beni Tuzin.

After climbing from the hot barrenness of the eastern Rif, one finds the forests of the Senhaja Sghir most beautiful and satisfying. On the mountain between Beni Bu Nsar and Taghzuth, it is difficult to realise that one is in Morocco. The whole of this section reminds one of temperate forests, such as are found in the northern United States and Canada; especially is this true in the long, flat plateau-valley of Beni Seddath, where a lush meadow is variegated with frequent clumps of *taidha*. Even in midsummer this region retains an exhilarating chilliness of atmosphere. (See plate 1.)

## CLIMATE

The slopes of the Mediterranean border of this region are rugged, mostly deforested, hillsides, with a climate similar to northern Mexico or our own Southwest. Farther to the east, in the tribes of Beni Said, Beni Ulishk, Tafersit, and parts of Galiya, the country becomes rolling and its slope relatively gentle, and grain is grown on it without terracing or irrigation. Farther south, however, stretches the arid expanse of the Garet, that waterless waste whereon the Metalsa and Beni Yahyi shift about from camp to camp. This desert stretches into parts of Beni Said and Galiya, and oversteps the boundary of Beni Ulishk and Tafersit. Here in the Garet grows a sparse crop of grass, and quantities of that coarse grass called *halfa*, resembling our own marsh or beach grass, from which the nomadic peoples, and the Gzennaya and other Riffians as well, make sandals, pack-saddles, ropes, and all sorts

[1] Page 484. [2] Page 136. [3] Pages 493, 499.
[4] Page 483. [5] Page 48.

1: Coon E-5 (1926-1927) - 1931 MX3 Rif MX3



reptile, green in color. When annoyed it puffs itself with air and exhales slowly, making an unpleasant noise. It is supposed to give birth to snakes, just as the lion is held responsible for the parentage of the panther. 136 825

Besides the snakes whose existence is unquestionable, one fabulous species is frequently mentioned. This creature is said to have a blunted tail, upon which it rises; using the tail as a lever it hurls itself through the air a great distance in the direction of its victim. The Riffians believe this firmly.

Fish are seldom seen in the smaller streams which empty into the Mediterranean; they are too swift, and, along their lower courses, too seasonal. In the Muluya, of course, fish are plentiful. What few there are in the mountain streams are eaten more by otters than by men, since the Riffians are not fond of fresh-water fish, although they preserve no definite tabu against them. 136 262

In the streams which empty into the Wergha on the Atlantic side of the watershed fish are more common, and are netted and eaten in Taghzuth and Beni Bu Nsar. Sea fishing, which has a special place under "Material Culture," [1] is carried on along practically all the coast.

[1] See below, p. 38.

1: Coon E-5 (1926-1927) 1931 MX3 Rif MX3

# CHAPTER IV

## MATERIAL CULTURE

### HUNTING

224 HUNTING is carried on in three ways in the Rif, by means of the rifle, the net, and the trap. In the fall and winter the Riffians, and especially the mountaineers of the Senhaja, spend as much of their time as they can spare climbing about the mountain sides in search of game.

[418] The weapons with which they hunt are confined to rifles of European manufacture and Taghzuthi flintlocks. Their chief quarry consists of rabbits, hares, pigeons, partridges, wild [262] boar, and, where there are any, the aoudad, wild ox, and gazelle. Since before any animal may be eaten by Mohammedans it is necessary that its throat be cut ceremonially, — the butcher pronouncing the formula "*bism illah, ullahu akbar*," — the Riffians have devised several means of counteracting the consequences of the game's dying before this has been done. The hunter when loading his gun may kiss the lead ball, pronouncing the formula of *hallala*, or the sacrament, over it, and any animal shot by that ball will be clean and edible. Another and more convenient method is to have a gunsmith chase the words of the formula in silver wire upon the stock or barrel, and thereafter any game shot by that rifle will be sacramentally edible. In the case of the wild boar, the hunter does not worry about giving it the *hallala*, since it is forbidden food in any event.

Nets are set up across a path or entrance to a clearing on the side of a hill, and long palisades of brush are erected like wings on either side of the net, slightly wedge-shaped, and at an angle of less than 180 degrees to each other. Beaters start at the foot of the hill and work up, converging until they reach the ends of the palisade, and thus drive into the net whatever small game they may have intercepted. In this way they catch rabbits, hares, [262] partridges, foxes, jackals, and other animals. Although they kill the foxes and jackals, they never eat them.[1]

[231] Ferrets are used in winter time to unearth rabbits. They are completely tamed and well trained.

224 Traps are made by local blacksmiths and are based on the same mechanical principle as 326 the type with which the reader is familiar. The differences are: (1) The base of the trap is a frame, rectangular in shape, instead of a plate. The jaws are hinged into the sides of this. (2) Each jaw is bent in two right angles instead of in an arc. (3) The spring, attached to one arm of the frame, operates at right angles to the axis of the jaws instead of parallel to it. Thus it actually touches but one side of each jaw, instead of both sides, as in modern traps. (4) There is no trigger or bait-holder. The traps are set by means of two sticks, one put under the end of the frame and over one open jaw, and the other under both sides of the frame and over the end of the first stick. The second stick thus is caught in the jaws when the trap is sprung.

224 The trap is buried in the path or in front of the hole of any small animal, the top being covered with leaves and dust. The two sticks are so arranged that the slightest motion will

[1] I have seen tribesmen of the Zaer, near Rabat, eat a jackal.

1: Coon E-5 (1926-1927) 1931 MX3 Rif MX3



The gathering of wild vegetable products is traditionally considered to antedate agriculture. Tales are told of the times when the Riffians subsisted on these products and game alone. In Ktama, where agriculture is difficult, the gathering of wild plants, especially *tuzzélt*, forms an important occupation. At the end of winter, when the dried fruit is gone and when the larders are low, many Riffian families would die of hunger if their womenfolk did not go out on the mountain slopes and up the watercourses looking for these natural foods.

The green plants, such as watercress and asparagus, are subject to a dietary sex tabu. Woman only may eat them. The reason given for this distinction is that they produce blood, fat, and soft flesh, desirable in women but not in men.

Mulberries and cherries were probably introduced by the Arabs and later abandoned. Mulberries are not considered good food and are seldom eaten except through necessity. Tomatoes were probably introduced from Spain and then given up.

**Cultivation of Fruit and Nut Trees and of Vineyards.** *zilon* (male), *misola* (female), the domestic olive tree. The male tree produces large olives low in oil content, which are preserved in lemon juice and eaten as a relish. The fruit of the female tree is pressed into oil. As a rule all the male trees in an olive yard are cut down with the exception of one, which is left to fertilise the female trees. The olives are called by the names of the trees which bear them.

*arman*, the pomegranate tree. The Riffians recognize sex differences in pomegranates, considering that the fruit with a thick skin and large, hard seeds in the granules is produced by the male tree, whereas the better fruit is produced by females. As a rule, the male trees are all cut down but one, which is left for fertilising the others. Sometimes male trees are left, so that the fruit may be sold in markets frequented by people unacquainted with the difference. The fruit and tree bear the same name.

*er ghas*, the fig tree. There are four varieties of fig trees, *aseiri*, *aghudani*, *awar n aksi*, and *abaran*. The fruit borne by the *aseiri* is round, with longitudinal purple and green lines; that of the *aghudani* is long, pear-shaped, and purple; that of the *awar n aksi* is round and light green. There are two varieties of *abaran*, one of which is round and green and the other long with black or purple lines. The three first varieties bear twice a year, in June and in September. The June figs, called *er bashor*, are eaten but not dried, except for use as medicine, since they contain but little sugar. The September figs, called *thezalh*, are dried. The *aberan* varieties bear only in September. The Riffians say that the *abaran* types are the only indigenous strains, and that the *aseiri* and *awar n aksi* came originally from the Arabs, whereas the *aghudani* is derived from the Negroes.

*shukwar*, a wild fig. Planted, it is said, by birds that have eaten cultivated figs, this fruit is useless for eating, but is employed for magical purposes. Each year the women and children go out and gather the wild figs when ripe, tie them together in pairs with grass, and hang them on the branches of the domesticated fig trees. There are said to be insects in the wild figs which come out and touch the buds of the domestic figs. It is thought that if these wild figs were not so hung and if the insects from them did not touch the buds, the cultivated figs would not bear.[1]

[1] Westermarck (p. 190) states that the Riffians hang male figs in female trees, in order to fertilise their fruit. A small insect, *Blastophaga grossorum*, bores in and out of the figs, fertilising them. Westermarck refers to Elfving's *De Viktigaste Kulturväxterna* (Helsingfors, 1885), p. 74.

1: Coon E-5 (1926-1927) 1931 MX3 Rif MX3



245 242 *lishin*, the orange tree. Riffian oranges are of the common North African variety. Tangerines are not grown in the Rif. It is said that the fruit of the male orange tree is elongated, while that of the female tree is round. Orange shoots are grafted to wild lemon trees without distinction of sex.

*limon*, the cultivated lemon tree, as distinguished from the wild variety.

*tifah*, the apple tree. Riffian apples are small and stunted, and not very palatable. They are not commonly grown except in the highest mountain tribes. The apple shoots are frequently grafted onto hawthornes. A sex distinction is made between the apples: the male ones are said to be large and white, and the females red.

*firas*, the pear tree. It is said that the male pear is white, while the female is reddish. Grafting onto hawthorne is common.

*thaghieshth*, the walnut tree. Walnuts are called *nue n thaghieshth*. The Riffians distinguish male from female walnut trees as follows: The male tree bears a hard-shelled nut with little meat; the female's nut is thinner shelled and meatier. Usually the males are cut down to make room for others. No grafting is attempted with walnuts.

*juz*, the almond tree. The nuts from this tree are called *nue*, the same word which is applied to walnuts. It is said that the male almond bears a nut with a single meat, while the meat of the female is double. Almonds, like walnuts, are not grafted.

*er mishmesh*, a species of plum tree. The sex of plums is distinguished by breaking the stone and tasting the meat inside. If it is bitter the tree bearing it is supposed to be male. Plums, like apples and pears, are grafted to the hawthorne.

*er barkok*, the apricot tree. Males are said to have thick skins, and females thin ones. Males are preferred for export, and females for drying.

*er khok*, the peach tree. The Riffians do not distinguish sex in the peaches, and do not attempt to graft them.

[262] The Riffian prizes his fruit and nut trees highly, perhaps even more than his grain and vegetables, since on the dried fruit of these trees and upon raisins his family is often forced to subsist for months at a time during the winter. He digs around and manures the roots of the trees every spring, and leads irrigation ditches to their trunks. He keeps them carefully pruned and trimmed, and diligently removes insect parasites from leaves and branches.

262 831 [585] Not only does the Riffian take great pains to distinguish between the sexes of the trees, but he also imposes a sex tabu upon the eating of the fruit of two of them, walnuts and almonds. Walnuts may be eaten only by women, and almonds only by men. The reason for this is symbolically sexual, since walnuts, on account of their wrinkled appearance, are supposed to produce a drying and shrinking, whereas almonds are supposed to produce fluidity and potency in men. Both walnuts and almonds consequently play a prominent part in the wedding diet.

*Vineyards.* Grapes are as important to the Riffians as fruits and nuts. Those grown in the Rif are a large reddish-purple variety, resembling Malaga grapes in form and in taste. They are grown on vines set out on high mountain slopes too steep and too barren for the cultivation of anything else. The vines are kept trimmed, and in spring the soil about their roots is loosened. It is seldom possible to irrigate them, although fertilizer is brought laboriously uphill when possible.

Among the Beni Bu Nsar, Beni Seddath, and Beni Khennus, and in Taghzuth, another variety of grapes is grown, smaller and bluish-purple in color. These grapes are hardier

1: Coon E-5 (1926-1927) 1931 MX3 Rif MX3



245 than the Riffian variety. They are grown on trellises outside of and trailing onto the houses, and along the village paths. Since they are trained to climb up trellises, they are not cut back like the Riffian grapes, but are allowed to grow as long as they will, for purposes of shade.

*Cactus.* The one species of cactus found in the Rif, the prickly pear variety, is called by its Arabic name, *karamus en Nsara*, or the Christian fig. It is found along the seacoast, in the eastern tribes up to Beni Tuzin and Gzennaya, and in the southern part of Gzennaya. It is absent in northern Gzennaya, in southern Beni Urriaghel, in Beni Amart, and in the Senhaja Sghir. Where it is grown it serves as a convenient fence about the house, and as a [238] supply of mediocre food in time of famine. Women and young girls pick its fruit, remove the needles, and sell it in market at a low price.

**Garden Plants and Care of Gardens.** *batata*, the potato. This vegetable is obviously 244 of American origin, although it has been grown for a long time in the Senhaja and central Rif and has become an integral part of the local culture. It is divided into two varieties: the reddish type, the more frequent, and the white type, found chiefly in Beni Amart. The white is considered the older. Potatoes are grown only where there is irrigation, and then usually in terraces.

*er khizzu*, the carrot. This vegetable, considered to be of Arab introduction, is not favored and is rarely grown.

*er bser*, the onion. This is planted in the following manner: in March onions are cut in two or more pieces lengthwise and planted; these pieces are allowed to grow big and go to seed, and the seeds are collected and sown in a starting-bed in August: the next year the stalks are cut off and the plants are separated and transplanted.

*jifth*, the white turnip.

*er firfir*, the pepper. Peppers are specially treated, being fertilized with goat manure when they begin to flower.

*jubshth*, a species of small bean.

*ibauen ibershanen*, black beans.

*thakhseshth*, a type of vegetable marrow or squash.

*thakhseshth n yieri*, the gourd, raised for bottles only and not eaten.

243 **Cultivation of Grains and Leguminous Plants.** *dra thesdat*, durra, is considered by the Riffians to be of recent introduction from the Negro country. It is grown only by men who have no terraces whereon to grow maize (*dra*), since it can be grown dry. It is not greatly valued and is not commonly grown.

*shinti*, rye,[1] is grown without irrigation on the mountain slopes where the land, too steep for ploughing, may be worked with the hoe. It may be grown on land which does not belong to the farmer, beyond the reaches of ordinary agriculture, and hence is an important source [242] of food supply for families owning insufficient arable land. The Riffians prize rye highly, considering it rich in food value and a strength producer. Since the Arabs ridicule them for eating it, the Riffians seldom discuss the subject with strangers, or produce food made from

[1] Samples of *shinti* from Gzennaya, now in the Harvard Botanical Museum, have been identified by F. Tracy Hubbard of the Harvard Botany Department as rye. Moulieras mentions *shinti* in his description of the Beni Bu Nsar, calling it "une sorte de blé blanc." Procopius ascribes the cultivation of a grain called *ἄρακος* to the mountain Berbers of his time. This grain, identified with the Latin *arinca*, was perhaps rye. Moulieras, *Le Maroc Inconnu*, vol. I, p. 53: Procopius, bk. IV, chap. 6, l. 13; Freund, Latin-English Lexicon; Liddell and Scott's Greek-English Lexicon, unabridged, 1882 edition; Vavilov, *The Origin of Cultivated Plants*, p. 206.

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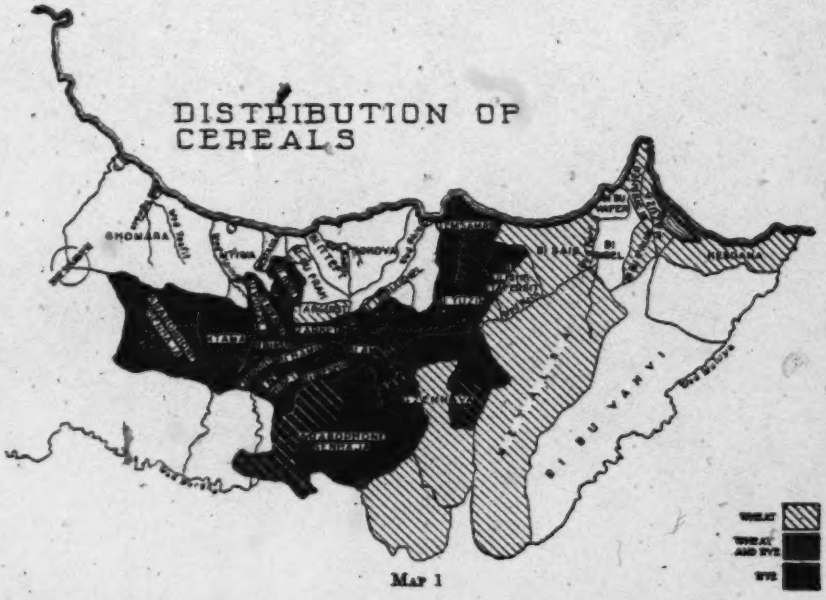
243 it when guests are present. It is another of the innocuous things of which they are curiously ashamed.

*imindhi*, barley, is the universal grain, being grown everywhere except in Taghsuth. It is grown on irrigable plough-land, in the regions where irrigation is practised.

*erden*, wheat, is found only in the east, in the lowlands, and in flat plateau country, notably at Bured and Targuist, where it has recently been introduced. The mountain farmers consider wheat extravagant and low in food value, while the lowlanders think it the only aristocratic cereal. The distribution map for rye and wheat shows clearly the relative




MAP 1

ranges of these cereals, both being largely regulated by environmental zones. I have not depicted the range of barley, since it is found wherever grain is grown except in Taghsuth.

*er kortar*, oats, are not cultivated in the Rif, but grow wild, and are sometimes gathered and eaten.

243 252 *shasana* is a leguminous plant resembling vetch, the English name of which, if any exists, I do not know.[1] It is grown in the same manner as peas and lentils. These leguminous plants are considered by the Riffians to belong with grains rather than with vegetables, hence I have followed the native usage in considering them in this place. *Shasana* is said to be poisonous when eaten without treatment. Like acorns, the *shasana* is placed in a basketry container and allowed to rest in the bottom of a stream, weighted down with stones,

[1] Specimens brought to the Harvard Botany Department are being studied.

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*July.* In July, forty-five days after having planted the maize, the farmers reap it, fertilise and water the terraces, and set out the second crop. This second maize is a different variety from the first, and grows more rapidly. After it has ripened it is left in the ground until December or January, when it is removed in time for the next season's ploughing. Towards the end of July the almonds and walnuts are picked and stored away.

*August.* About the first of August, after the second crop of maize has been planted and the almonds and walnuts picked, the farmers gather the turnips, potatoes, and small beans, planting in their stead more potatoes, more turnips, and black beans. They likewise set the onion seed out in beds, and after the shoots arrive cover them with manure and branches to keep them warm during the winter. Toward the last of August the late figs are picked, split, and set to dry. Figs intended for sale rather than for local consumption are not split, but are spitted on sticks of wood. At this time the farmers also pick pomegranates and carob beans.

*September.* September is the grape season. Whole families repair to the precipitous vineyards with baskets to pick, sleeping in the vineyards at night, and feasting and playing games. This is the season of festival, and likewise the time when weddings take place. At this time, when the families are sleeping in the vineyards, raw garlic is eaten plentifully, since this is the only time of year in which people do not live in the house, and it is considered shameful to have an odor of garlic about the house. After the grapes have been picked the women gather the root called *fathis*, which they burn. The ashes, mixed with water, are used to wash the grapes before these are set out to dry. Grapes washed in this way are said to dry more rapidly, not to rot, and to form better raisins.

[262]
[251]

*October.* Toward the end of October the olives are picked and stored away packed in salt until the farmers find leisure in which to grind them. Olives can be kept two years in storage without detriment.

[251]

*November.* In November the farmers graft trees, using beeswax in the process just as it is used among modern farmers. They tie the waxed joints with cloths, which they leave on until the following spring. In October and November the men cut wood and brush for their fires, enough to last them through the winter. The women and children help them to bring this wood in on their backs.

*December.* Toward the end of this month and in early January, those farmers who possess orange trees pick the fruit. Some of it is eaten, but much is sent to Fez to be sold. During the winter months, when it is stormy outside and farming is ended, the men sit inside the house working with wood, fashioning spoons, hoe-handles, and ploughs, and do what repairing is necessary upon their houses.

This calendar of events keeps the Riffian farmers very busy most of the time, and as a rule they are most industrious and energetic workers.

In the regions where there is no terraced irrigation (left white upon map 2[1]) only one crop of maize is grown, and but one crop of vegetables. This is compensated for by the relatively greater abundance of arable land in the east and other low-lying districts. The mountain people depend to a great extent upon vegetables, especially the leguminous varieties, and dried fruits and nuts, while the lowlanders go in more extensively for wheat and barley.

[1] See p. 52.

1: Coon E-5 (1926-1927) 1931 MX3 Rif MX3



252 milk products, and (8) intoxicants and narcotics. To these topics may be added that of table manners.

252 262 **Cereal Preparations antedating Bread.** In Procopius we are told that the chief food of the mountain Berbers of Algeria consisted of roasted grains, eaten as such and without being made into bread;[1] and early accounts of the Canary Islands describe the Guanches as eating habitually a food called *gofio*, made from roasted barley.[2] This type of food, which the Riffians believe to have antedated bread, is still eaten in the more remote mountain sections of the Rif and Senhaja. The various kinds of food so prepared are as follows:

*zimbu*, barley or maise, is roasted in an oven or pan, ground in a stone mill (see plate 13), mixed with melted butter, and rolled into balls. These balls of *zimbu* are given children as a delicacy or as a snack between meals. They are likewise taken into battle as emergency rations and carried on long journeys.

*tha' asat* is maise roasted in the same way as is *zimbu*, then mixed with raisins and either almonds or walnuts, depending on which sex is to eat it. The whole is put into a grain pestle and crushed and mixed together; melted butter is poured through it, and the compressed cake taken out of the pestle and allowed to dry, a process during which it becomes very hard. This makes a compact lasting food, eminently suited for pilgrimages and other long journeys and for war. The maise used in *zimbu* and *tha'asat* is especially chosen so that in roasting it will burst open (like American popcorn).

*imshiken*, rye, is boiled in water until thoroughly cooked and swollen, then the water is drained off, butter is added, and the dish is ready to eat. It closely resembles oatmeal porridge and other cooked cereals commonly eaten in this country.

*thighwawin*, barley, is roasted, then husked in a pestle until the skins come off. It is eaten dry in time of war or of great emergency.

*inwan*, barley, is broken coarsely so that four or five pieces result from each grain. It is thrown into a pot of boiling water and cooked until swollen, then eaten with a spoon, like boiled rice.

These primitive methods of preparing grains for consumption are restricted to-day to a limited area, although traditionally all the inhabitants of the region formerly employed them. They are always found in association as a definite complex in the mountain sections of Beni Urrisghel, Beni Amart, Temjunt, Iherrushen, Ikhuanen, and Iherrassen of the Gsennaya, all of the Senhaja Sghir, and the Western Arabophone Sehaja.

**Bread and Breadmaking.** *agharum*, bread, is made from an incredibly large number of different materials. These are wheat, barley, rye, wild oats, maize in combination with some other cereal, durra (of recent introduction), acorns, dried *asanu* and barley flour, *iyarni*, a wild tuber, *kirsana*, *ashtar*, another wild tuber, and the seeds from the pod of the *tuzelt*. There is a tradition, probably unfounded, that the ground pits of olives left after pressing are also utilized.

The grain is usually ground fresh for each baking. The first process is to mix warm water with the yeasty dough left over from the previous day's baking. Yeast is kept by holding over a bit of dough each day and mixing it in this way. If one's yeast gives out, a neighbor will supply more. Few housewives attempt to start yeast, which is considered a very difficult task. It is said that it can be done, however, by using the mother from vinegar,

[1] Procopius, bk. iv, chap. 6, l. 13.
[2] E. A. Hooton, *The Early Inhabitants of the Canary Islands*, p. 69.

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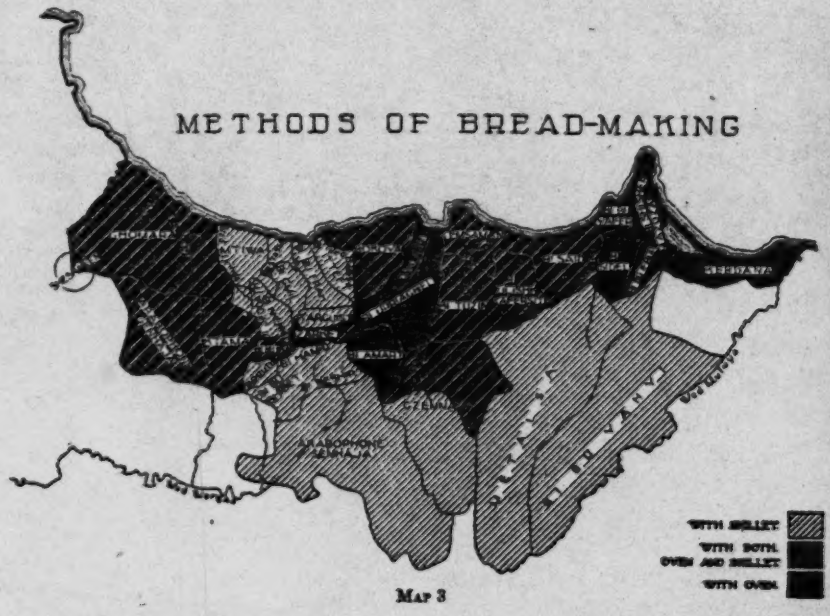
and lemon juice. After the yeasty dough has been thoroughly diluted in warm water, flour is mixed in, and the resultant dough patted into disc-like loaves. These are piled one on top of the other and allowed to rise until the bubbles start bursting open, and then are thrust into a hot oven, from which the glowing embers of a hot juniper or other brush fire have just been drawn.

The Riffians say that the women of the Senhaja Sghir do not allow their bread to rise as long as do Riffian women, and that the resultant product is not as good. Personally, I found the bread in both places excellent.




Map 3

It is said that nineteen or twenty loaves of bread can be made from a *mudd* of barley, twenty-four from a *mudd* of wheat, and thirty-two from a *mudd* of rye. In this way rye, although it reproduces less grain than the others, compensates in the final product. A *mudd* is a common Moroccan measure.[1]

Bread is highly prised, due to its scarcity, in the Senhaja Sghir, and in Ktama is eaten only on memorable occasions. Although the usual shape of bread in the Rif, as well as in all Morocco, is discoidal, the Galiya and Kebdana women make long narrow loaves, like French bread. Besides the ordinary bread which has just been described, several types of unleavened bread and pancakes are commonly made:

*aftheir*, dough, is prepared without yeast, and fried on an earthen skillet.

[1] See p. 113, n. 3.

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*tarid*, a similar loaf, made with wheat bread and sugar. This is considered to be a recent Arab introduction.

*ḥarīra*, pancakes, are made from a thin batter, full of ground pepper, dropped on a hot skillet.

Bread is baked in an oven called *thinurth* (see plate 13), whereas *aftheir*, *tarid*, and *ḥarīra* are prepared on an earthen skillet called *akhadam* and attributed to the Arabs. (See plate 13.) Of the bake-oven and the skillet, the former is unquestionably the older and more characteristic in the Rif. It is found in all the Rif but the maritime tribes, Nomads, Shawia and Imedurar of Gsennaya, Zarket, Beni Bu Nsar, Beni Seddath, Beni Khennus, Taghauth, Ktama, Western Arabophone Senhaja, and Ghomara. The clay skillet is distributed throughout the Rif with the exception of Beni Urriaghel, Beni Amart, Telmest, Galiya, and Kebdana.

**Preparation of Vegetable Products without Meat.** Another important article of diet is *ghamarik*, a sort of purée or thick soup, which is made of dried split peas, ground beans, or lentils. When it is made with lentils, cut-up onions are added. The purée is boiled in a little water, the pulse being thrown in after the water has begun to boil. When it is nearly cooked butter or olive oil is added, and the resultant purée is eaten with bread used to scoop it out of the bowl, instead of with spoons. *Thamarik* is considered particularly nutritious and warming, and is eaten mostly in winter when there are no fresh vegetables and on particularly cold days. It is found in every tribe except the Nomads.

The wild greens mentioned under agriculture, gathered and eaten by the women, are boiled and mixed with oil or melted butter.

Peppers and onions are eaten raw by men working in the fields who do not want to take the time to go home to lunch.

Dried figs, apricots, raisins, almonds, and walnuts are eaten at any time, either on the march or in the house. They are taken especially in winter after the grain of the previous harvest has been used up. During years following poor harvests whole villages go for months with no other vegetable food than these dried fruits and nuts, in addition to what wild roots, herbs, and berries they are able to collect in the wilderness.

Acorns are divided into two classes, *rbajuth marjaz*, bitter acorns, and *rbajuth misirth*, sweet acorns. The latter may be eaten raw, but the former must be crushed and left in a stream, inside a bag, until the water has washed all the bitterness out of them, — the same process as that employed with *shasana*.

**Dishes containing Meat.** *seksu*, commonly known as kuskus, forms an important article of diet in the Rif, as well as in the rest of North Africa. Briefly, since it has been often described, *seksu* is a composite dish made of coarsely ground flour, moistened and rolled into small balls the size of the head of a glass-headed pin. These balls, or granules, are placed in a container the bottom of which is pierced with small holes and steamed over a pot of boiling water or of stew. The stew, which may be cooked separately, consists of vegetables, especially onions and turnips, and lamb, beef, goat meat, or chicken, butter or oil, and seasoning. The *seksu* is spread out, in a large dish, in the form of a symmetrical hill, and the stew is poured on the top, whence the juicier parts seep into the *seksu*; the chunks of meat and vegetable may be readily reached by the persons enjoying the repast.

Another common dish, distributed throughout North Africa, is called *guaz*, a name which the Riffians have taken over from the Arabs. *Guaz* may be purely vegetable or may

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252 262 contain meat. The vegetable *guaz* consists of vegetable marrow, potatoes, onions, and peppers casseroled in a pot with oil. Meat *guaz* consists of the same combination of vegetables, or of as many of them as can be obtained, plus gobbets of any kind of meat — goat, sheep, or beef — or whole chickens. *Guaz* is the dish commonly given to guests, especially Europeans and Arabs.

The *kebab*, a recent innovation, is a series of chunks of meat, preferably mutton or goat, spitted on a length of wire, stick, or on a specially constructed spit. Pieces of fat alternate with the meat, and chopped-up onions and peppers are rubbed into the meat lavishly. The whole is broiled over a charcoal brazier and eaten as soon as it leaves the fire. (See plate 19.) The *kebab* forms an easily prepared and tasty dish, especially convenient for people on the march, who cannot carry pots or other utensils. Although introduced only [177] recently it has had a rapid diffusion throughout the area, and is now known everywhere. An especially prized type of *kebab* is that made from bits of liver wrapped in sweetbreads.

[257] Meat may be preserved for later consumption by two methods, drying in the sun and the manufacture of sausages.

*er kadidth*, from the Arabic *el kadid*, may be made of any meat commonly eaten, except chicken. Mutton, goat, and beef kadids are common, but the meat most suitable for this form of preservation is the flesh of the wild boar. Until recently pork kadids, resembling in taste ham, shoulder, and bacon, were made throughout the Rif, but through an increasing wave of religious feeling this article of diet is fast disappearing. In the Rif it is found only occasionally, and even then is made and consumed secretly through fear of ridicule. The people of Temjunt and Inhanahan of Gzennaya, as well as the Beni Amart, probably make and consume more of it than any other groups in the Rif. In the Senhaja Sghir it is still manufactured and eaten openly, especially in Ktama, Beni Seddath, Beni Bu Nsar, and Beni Khennus. In Beni Bu Nsar and Taghzuth it is called by another name when Arabs or Riffians are present. The kadid may be eaten dry, like chipped beef, or in a *guaz*. It is made and eaten by everyone in the area excepting the Metalsa and Beni Bu Yahyi.

*thimhagzin*, sausages, are made from goat meat, beef, and pork. The latter meat is rarely used at present, but was formerly the common sausage material. The meat is chopped up, mixed with fat, salt, peppers, and onions, and packed into intestines, bladders, and stomachs. Sausages are eaten only on the feast of *Ashor*, and occasionally on the *Haggus*. For the former celebration, one sausage is made for each member of the family, its size [251] varying with the size of the person who will eat it. These delicacies are hung in a cluster on a rafter. Sausages are found in the Beni Amart and among the Mountain Urriaghlis.

**Fish.** This is eaten very rarely in the mountain interior, although it forms a common enough article of diet along the coast. When eaten fresh, there is but one method of preparation — by frying in a skillet, with olive oil or some other fat. Sardines are more commonly eaten than any other kind of fish, and when prepared in this way, with olive oil, are very tasty.

251 252 262 There are two methods of preserving fish, by salting and by baking. Salting is done as soon as the fish are brought up on shore. The product so prepared is carried inland in baskets and sold in markets. (See plate 32.) Sometimes sardines are put in a bake-oven without being cleaned. When baked to a crisp they are set aside for winter consumption. Salted fish are sold inland, but baked fish are intended for the use of fishermen and their families.

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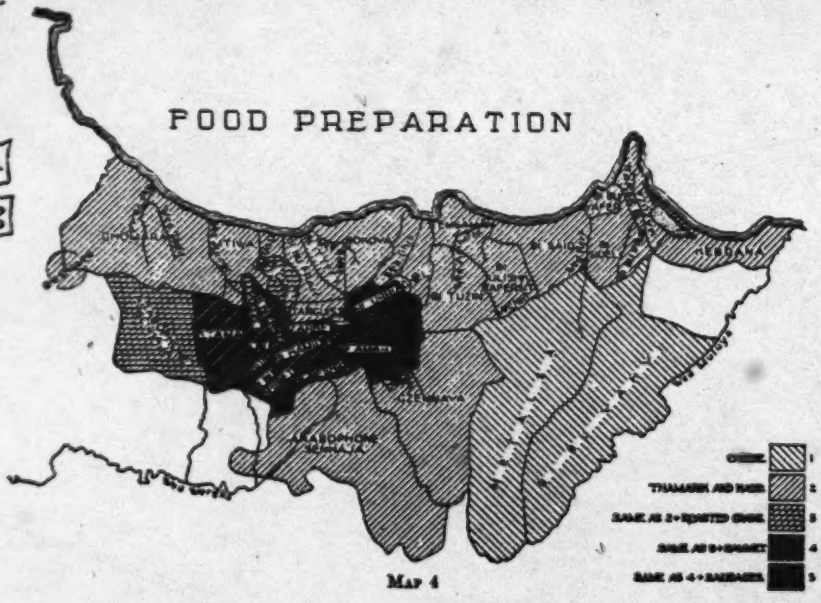
252 Fish is never boiled or prepared in any way other than those above named. It is never eaten during a meal at which milk is drunk.

262 **Eggs.** These are most commonly eaten hard boiled, a number of them in a bowl of melted butter constituting a common dish. They are also made into omelettes, but this latter method is rare and is probably of recent introduction. They are never mixed in bread or in any other composite dish.

262 234 **Milk and Milk Products.** Milk is consumed in a number of different ways. It may be drunk fresh, as it commonly is, especially among the mountain peoples, or may be left to




MAP 4

curdle. The curds, called *aphin*, are drunk out of a communal pot. Butter, called *adhen*, is made by two methods: (1) In the Rif, except in the region of nomadism, cream is put into an earthen pot with a narrow neck and a spout and two handles. Leather lids are tied over the neck and spout, and the pot tied to the rafters by the handles. Here it is swung back and forth until the butter is ready. (2) Among the Metalsa and Beni Bu Yahyi the cream is put into a goatskin, which is tied tight and swung from a wooden tripod until churning is completed.

*el kleila* (Arabic), cheese, is made only by the Beni Bu Yahyi and Metalsa. It is commonly produced in the form of flat, hard cakes. Being cheese makers, the nomads naturally know the properties of rennet, which they cut from the stomachs of calves; with this and fresh milk they make junket, *jeben*, which they feed to children. The sedentary peoples,

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262 234 being ignorant of rennet, use instead the sap squeesed from the ends of fig branches. They claim that this fresh juice will solidify milk.

**Intoxicants and Narcotics.** *sammet*, grape jelly. An intensive manufacture of grape 273 jelly is carried on in the central Rif and in the Senhaja Sghir, by means of boiling pressed grape juice until it has reached a viscous state. Such of this jelly as has been subjected to a [251] relatively short period of boiling is alcoholic. *Sammet* is put away in jars for winter consumption and is regarded as a delicacy. Distribution is throughout the Senhaja Sghir excepting Beni Gmil and Beni Mesduy, Mountain Urriaghel, Iherrushen, Ikhuanen, and Beni Amart. In Beni Amart it is not made, on account of the absence of grapes, but is imported from Beni Urriaghel and extensively eaten. None of the other tribes who do not make it ever eat it.

Wine-making, which Marmol[1] attributed to the Riffians, is not at present practised except by a few Riffians who have learned the process in Algeria. I was unable to find any tradition of its former manufacture or use. It is, however, made in the Beni Zerwal, a Jeballan tribe a very short distance from our area. Here it is called *khamr*, the Classical Arabic word for wine. It is possible that the Riffians formerly made wine and then gave up the practice. It is likewise possible that they adopted it from first-wave Arabs, whence the Zerwali word, and then gave it up. The Arabs, in the early days of the Caliphate, were not all total abstainers.[2] On the other hand it is hard to imagine a Mediterranean country where grape culture is well organised which was ignorant of wine before the introduction of Islam.

276 *kif*, a narcotic, is the ordinary *Cannabis indicus*, a hemp grown in many parts of North Africa as a drug. Although not cultivated in the Rif it is extensively grown in the Ghomara and Western Arabophone Senhaja, as well as throughout the other mountain tribes of northwestern Morocco. Two different parts of the plant are used for smoking, the leaf and the flower, of which the latter is by far the more potent. With it is smoked a harsh variety of tobacco, also grown locally. The mixture is smoked in a small-bowled clay pipe with a wooden stem. (See plate 14.) *Kif* is grown and used in the Ghomara, Western Arabophone Senhaja, and Ktama. Of recent years its use has been spreading eastward, until at present it is commonly used in Taghzuth and other tribes of the Senhaja Sghir. It has not yet become common in the Rif proper, although single individuals, usually travelling hawkers, smoke it secretly.

*hashisha*. In the Beni Bu Nsar, Ktama, and other tribes in which *sammet* is made and eaten, hemp has been converted into a novel use. It is made into a paste and eaten. In this way an effect greater even than that obtained by smoking it results. Whereas *kif*-smoking is not often indulged in by women, members of that sex eat *hashisha* as freely as do their husbands. The eastward diffusion of these two traits of hemp-using seem to be accompanied by the correlated diffusion of a degradation of woman and by the practice of sodomy. *Hashisha* is distributed as is *kif*, but is also found in Beni Bu Nsar.

264 574 **Riffian Table Manners.** When a Riffian family eats alone, the women and children sit with the men and eat with them. Intimate guests are allowed to eat with the family. When, however, guests of distinction or guests who are not intimately acquainted with the

[1] Chaps. 62, 70, 79, 86–88.

[2] Sir William Muir, *The Early Caliphate*, pp. 143, 184, 207 *sqq.*, 316, 386, 423, 431, 467, 473, 488 *sqq.*, 507 n., 570, 601.

784 272 who is riding behind him, to give money to the offerer. When a person receives a vessel containing milk he should use both his hands; and if anybody is going to drink milk he must first say the bismillah. Nobody is allowed to laugh while drinking milk.

When a cow has calved, special precautions must be taken with regard to its milk. It must not be removed from the house or tent for two (Hiaina, Ait Warain, Ait Nder), three (Ulad Bu aziz, Tsul), or even seven (Ait Waryager) days. If it were, the cow would be injured by the evil eye and its teats would get diseased. On the first day the milk is always boiled, and in many places on the second (Hiaina, Ait Warain, Ait Nder) or the third (Ulad Bu aziz, Tsul) as well. Among the Ait Waryager it is on the first day eaten boiled (it is then called adhas) and mixed with eggs, and on the second and third day it may be boiled; but only members of the household are allowed to partake of the adhas, and a transgression of this rule is considered to cause injury to the cow.

784 296 [251] When a woollen jellab is washed, the water must not be squeezed out of it lest the wool should be dear, but it must be left to dry in the sun (Andjra, Ait Waryager).

784 ●262 [252] Another taboo relating to bread—as well as to milk—is the prohibition of selling it, which is very imperative among Berber-speaking people. Among the Ait Waryager a person might, by selling bread, even run the risk of being killed by his relatives; and I was told that a Berber of the central group (Braber) would rather die of hunger than buy a loaf of bread.

432 689

778 784 [783] [253] The person who writes a charm must not only be clean, but also be in the habit of saying his daily prayers and of observing the fast of Ramadan; and in some special cases he must besides abstain from salted food for a week (Ait Waryager), or he must write the charm in a state of nakedness (Ulad Bu aziz).

[256] Among the Ait Waryager a vessel containing fresh milk must not be taken into a mosque.

778 821 [257] Although there are charms which are written when the sun is shining on the paper, I have much more often heard that a charm loses its baraka if the sun shines on the writing or even on the paper after it has been written upon (Andjra, Hiaina, Ait Waryager), and the reason given for it was that baraka must not meet baraka (Hiaina); yet charms written with rose-water or saffron are said not to be spoiled

776 against you by God and the religious law", so as to drive it away if it is a jenn or a saint, or to prevent the jenn (Hiaina, Ait Sadden, Ait Waryager). A single raven seen in the morning by a person who sets out on a journey is sometimes said to be a jenn (Temsaman).

[271] Whilst there are certain events which indicate the presence of jnun, there are others, of an improper or uncanny character, which cause their sudden and unwelcome appearance. If a person omits [264] saying the bismillah before eating, jnun or the devil will eat with him. If a person eats or drinks [272] standing (Andjra, Ait Waryager), or eats with his left hand (Ait Waryager), jnun are eating or drinking with him.

[782] If a person when he is praying does not bow down so low that his head touches the ground, evil spirits or the devil will pass through the space between; and if several persons are praying together without standing shoulder to shoulder, jnun or the devil will likewise pass between them (Andjra, Ait Waryager).

776 ● 262 [263] [278] Raw meat, as also meat boiled without salt, is considered haunted and consequently in many cases a source of danger. As already said, a person who gets angry with raw meat in his hand is very liable to be struck by jnun. The same is the case with one who is beaten by such a person (Ulad Bu aziz, Ait Waryager).

No meat must be returned to the butcher (Shawia, Andjra, Ait Waryager, etc.) or generally to the person who has given it; it would be bad for both parties (Ait Waryager).

If a person in a village slaughters an animal or brings home meat from the market and his neighbours know of it, he must give a little of the meat to each of them (Ait Waryager), since otherwise they will be hurt by jnun (Ulad Bu aziz, Ait Sadden).

[843] [279] If a pregnant woman asks a butcher, or somebody else who has meat, to give her a piece of it, he must do what she aks, because otherwise the fetus (Ait Waryager) or the woman as well (Ulad Bu aziz) will die; should he refuse, her husband might complain of it to his governor, who would compel him to give, or at least to sell, the meat which was asked for (ibid.).

776 264 If a person eats meat in the presence of some one else he must let him have a share of it (Andjra, Ait Waryager, Ait Sadden; for l-lham auwaj l-hanak, "meat distorts the jaws [of him who does not get it]", he will be made ill by jnun (Dukkala)). In explanation of these

796 782 [120] It is the rule that as soon as the animal[1] is killed its head and feet are cut off. The women seize hold of them in great haste and singe off the hair as quickly as possible (Dukkala, Hiaina, Ait Sadden, Ait Nder, At Ubahti). In Dukkala it is believed that if they do not do this rapidly their own hair will not grow; but the original reason for the practice in question seems to be the belief prevalent among some Berber tribes (Ait Waryager, Ait Nder) that the smoke of the hair drives away evil spirits or protects from other evil influences as well.

The part of the sacrificed animal which is to be eaten first is generally the liver, although in some instances it is only partaken of [252] on the second day of the feast. It is either roasted or boiled with salt. The other parts of the animal are eaten in a fixed order, which, however, varies in different tribes or in different families. Very frequently the lungs and the stomach (Fez, Shraga, Hiaina, Mnasara, Andjra, Ait Waryager, Temsaman, Ait Warain, Demnat, Amanuz), as also the heart (Shraga, Hiaina, Mnasara, Andjra, Ait Warain, Demnat, Amanuz), are partaken of on the first day, and the head (Tangier, Shraga, Hiaina, Mnasara, Andjra, Temsaman, Ait Warain, Demnat, Amanuz) and the feet (Tangier, Shraga, Hiaina, Andjra, Temsaman, Ait Warain, Amanuz) on the second; but sometimes the lungs, stomach, and heart are eaten on the second day (Ait Sadden), and the head and th the feet on the first (ibid.) or the third (Ait Waryager). The flesh is almost universally abstained from on the first day.

●[262] [121] Among the Ait Temsaman and the Ait Waryager children are not allowed to eat the throat, because it has been cut with a knife; the former also prohibit them from eating the eyes, while the latter maintain that if two boys should eat together the same eye they would quarrel.

[251] What remains of the meat is made into qaddid (or geddid [Ulad Bu 'aziz], lqaddid [Igliwa], rqaddid [Temsaman, Ait Waryager], tiqqaddidin [Ait Sadden], asawar [Ait Yusi], tagarin [Aglu], tifiyi iqorn [Amanuz]), that is, the meat is salted and cured in the sun in strips.

[735] A portion of the qaddid is generally given in charity to poor people. We have previously seen that some of it, or something else of the sacrificed animal, is left to be eaten on the eve of the following 'asura. Among the Ait Waryager some qaddid must be preserved till the following mulud.

[1] [i.e.-sacrificial,- Analyst]

231 755 [288] The milk of a donkey, though unlawful like its flesh, is drunk as a cure for whooping-cough (dmaggit; Ait Waryager); and a piece of bamboo filled with it and sealed up may, besides, be hung round the neck of the young patient (Aglu). It is believed, however, that the donkey's milk will have a bad effect on the intelligence of the child who drinks it (Ait Waryager). It is also used as a remedy [859] for a child who has become ill by sucking his mother while pregnant (ibid.).

231 839 [289] Young boys who have not yet attained the age of puberty have intercourse with she-asses in order to get sexual capacity and make the penis grow (Ait Waryager); and for the same purpose they also dip it into a heap of fresh donkey's dung (Tangier). In the case of grown-up men bestiality is despised or ridiculed. Among the Ait Waryager, if a man is caught in the act, a cairn is made at the place, a stick with a small flag is thrust into it, and people dung on the cairn.

231 777 [292] Among the Ait Waryager, if a person buys a cow in the market in order to keep it, he must also buy a small quantity of wheat or fish to take home with him to eat; this will make the animal lucky. On the other hand, he must on no account buy meat on that occasion.

262 ● [295] The fresh milk of cows, sheep, or goats is called in Arabic hlib or halib; and in Berber akfai (Amanuz), takfit (Igliwa), aggu akffa (Ait Sadden, Ait Yusi), agi (At Ubahti), asaffai (Ait Waryager), asffai (Temsaman, Ait Warain). Buttermilk is called in Arabic lben; and in Berber agu (Amanuz, Igliwa), aggu anddu (Ait Sadden, Ait Yusi), agi asemmam (At Ubahti), agiy (Ait Waryager), agi (Temsaman, Ait Warain). Curded milk is called in Arabic rayib or raib; and in Berber ikkil (Ait Sadden), ekkir (Ait Yusi), aklil (Ait Warain), attsil (At Ubahti), assir (Ait Waryager, Temsaman).

[297] Fresh butter is called in Arabic zebda; and in Berber tudit (Amanuz), tamudit (Igliwa), udi (Ait Warain), tlussi (At Ubahti), drussi (Ait Waryager), trussi (Temsaman). Salt butter is called in Arabic smen; and in Berber udi (Amanuz, Igliwa, Aglu, Ait Warain), ddhen (At Ubahti, Ait Waryager, Temsaman).

252 [298] The Ait Waryager hang a dead hoopoe over the place where they are going to make butter, and they also burn its body underneath the aqasror, or earthenware vessel in which they make their butter, and fumigate it with the smoke, leaving the head of the bird hanging, as said before.

825 The wild-boar, as well as the domestic pig, is an unclean animal
[262] and must not be used for food; swine's flesh is strictly forbidden to
Moslems in four different places in the [313] Koran.

[317] It is generally believed that the hyena possesses the power of fascinating people with a view to devouring them, a belief which is also found in the East and is spoken of by Pliny as existing in classical antiquity. If a hyena makes water on a person (Casablanca, Ulad Bu'aziz, Igliwa, Aglu) or wets its tail and then sprinkles him with the urine (Ait Sadden, Ait Warain), or when seeking him makes a noise (Ait Waryager), he becomes enchanted or loses his senses and follows the animal to its den, where it eats him.

[755] [319] The jackal contains much medicinal and magic virtue.

[842] [320] Childless men and women who are desirous of offspring burn the dried intestines of a jackal and fumigate themselves with the smoke, letting it pass underneath their clothes (Ait Waryager).

Among the Ait Waryager a person who is going out to steal puts the ear of a jackal in his bag in order to keep the dogs from barking; they will scent the smell of the jackal, of which they are much afraid.

[787] [321] To meet a jackal when you start on a journey is by some people said to be a good omen (Hiaina, Ait Waryager), but by others a bad one (Andjra, Aglu).

755 The fox contains 366 medicines.

825 [322] In other tribes the powder made of a charred fox, mixed with honey, or with honey, butter, and spices, is taken in the morning before breakfast as a cure for an affection of the heart (Ait Waryager) or for Iberd (Ait Nder). Men who have been made impotent by witchcraft burn the penis of a fox and fumigate their own with the smoke.

[754] The gall of a fox is used by women for practising witchcraft, for example, with a view to inducing a man to divorce a rival wife.

[787] [323] Among the Ait Waryager the barking of a fox is supposed to indicate that the wind will be westerly, in Andjra and the Garb that it will be easterly. Charms are written on the skin of a fox.

The weasel is used as a medicine for horses and mules and, less often, for men. It is dried and burned, and the sick animal (Ulad Bu'aziz, Hiaina, Ait Nder, Ait Waryager) or person (Temsaman) is made to inhale the smoke.

[324] The blood of a hedgehog is smeared on the head of a boy suffering from ringworm (daqassar), so that it shall be covered with hair as the hedgehog is covered with bristles (Ait Waryager).

825 The roasted and pounded liver of a hedgehog, mixed with honey, is also given to schoolboys to eat in the morning on an empty stomach in order that they may remember their lessons (Ait Waryager).

[326] The hare is said to have been once an old woman, who was transformed into a hare because she acted as a panderess (Ait Sadden). It menstruates like a woman and is therefore an unclean animal which [262] should not be eaten; but this rule is not strictly observed. It is eaten both as food and for magical and medicinal purposes.

825 755 [327] Among the Ait Waryager, if a person suffers from night-blindness (butallis), the liver of a hare is roasted and cut into three pieces by the schoolmaster of the village, who then writes something from the Koran on them. The patient takes one of the pieces and goes with it in the evening after sunset to the dung-heap (dazubait) of the house, calls a dog, and eats the piece of the liver, giving little bits of it to the dog as well. On the two following evenings he does the same with the other pieces of the liver; and then he will get rid of his complaint.

[781] If you go anywhere in the morning and meet a hare it is a bad omen (Dukkala, Andjra, Ait Waryager, Igliwa), especially if the hare is asleep and wakes up and runs ahead of you (Hiaina).

[328] The bat is used as medicine for fever. It is dried and burned and the smoke is made to pass underneath the clothes of the patient (Ait Waryager).

825 [331] To shoot a raven may also be attended with evil consequences. I was told of two men among the Bni Msauwar who did so and whose guns burst, and similar things are said to happen among the Ait Waryager.

[781] [333] The Ait Waryager believe that if a person goes somewhere at any hour of the day, it is a bad omen to see one raven ahead of him but a good one to see two.

[334] The eye of an owl is used as a means of preventing a person from falling asleep.

Both eyes are also removed and put into water. I was told that one of them always sinks and the other one floats; but while some people sew up the eye which sinks in a small leather case and wear it as a charm to prevent sleepiness (Ait Nder), others eat the eye which floats for the same purpose (Ait Waryager).

825 remove the tent on the following morning, because then they know that the snake is the master of the place and does not want them to remain there. The Shloh of Aglu call a snake found in their granary bab lmakan, the Rifians of the Ait Waryager bab umhan, both expressions being equivalent to the Arabic mul le-mkan.

[349] Among the Ait Waryager a snake which is seen on the rafters is driven away by shooting or by the burning of the horn of a goat, the smoke of which is supposed to put it to flight.

[787] [353] If you see a snake in the morning you will succeed in your business—Sabbah 'al l-haiya hajt u maqdiya (Hiaina; Tangier, Andjra, Ait Waryager, Temsaman, Ait Sadden, Ait Nder, Igliwa).

825 852 [354] There are families that, when a child is born, have to procure from some shereef belonging to the so-called surfa [355] t- Teida (among the Bni'Aros), of Mulai 'Abdsslam's family, a live scorpion, which then, enclosed in a piece of bamboo, is hung round the neck of the infant, because otherwise he would become ill or die; it is left on the child until he is able to walk and begins to speak, after which it is deposited at a shrine (Tangier). The Ait Waryager hang a live scorpion enclosed in a piece of bamboo round the neck of a sick child.

825 [752] [824] In other tribes also the scorpion is killed and rubbed on the wound caused by it (Ait Sadden, Ait Warain, Temsaman); and in Andjra [356] the wound is then cauterised with the end of a bamboo which has been set alight. The Ait Waryager apply to the wound a hot compress of bran of wheat soaked in water.

[854] [357] Pounded red ants mixed with milk are given to little children when they cry at night (Tangier), and a child who is in the habit of making water in bed is made to eat a little earth from an ant-hill and then to urinate on the hill (Ait Waryager).

[787] [359] Among the Ait Waryager a moth (dabassart) fluttering about a light is considered a good omen if it is white or red, but the reverse if it is black; in any case, however, the person who sees it would say, "If you bring with you good leave it here, if you bring with you evil take it away with you".

[361] An animal should not be killed unless it is either harmful or allowed to be eaten or otherwise useful to man or killed in hunting.

262 264 [362] When eggs are to be used as food it is in Morocco the custom for the person who breaks them to say, "In the name of God", or,

242 [264] "In the name of God, God is most great". This may be said before the breaking of the first egg only (Andjra), or before the breaking of each egg (Ait [363] Waryager).

Among the Ulad Bu'aziz unmarried men and girls refrain from eating the nose of any animal, lest they should have rain at their wedding. Among the same tribe scribes and boys who are studying the Koran must not eat an animal's throat, because the eating of it would make their voices hoarse. Among the Ait Waryager the same part is for a similar reason not given to children to eat. They also prohibit their women from eating the testicles of any male animal, which are eaten by the men; and they believe that if a child ate the kidney of an animal it would come out as lumps on the face and body of the child.

[364] A man who has killed an edible wild animal or bird eats its head in order to be successful in hunting (Ait Waryager, Temsamah), or he eats, for the same reason, both the head and the heart, though he may share them with his wife and children.

224 689 [365] Various customs relating to hunting, target-practice, and guns have been mentioned in earlier chapters, but others may be added.

Among the Ulad Bu'aziz in Dukkala, if one of the hunters misbehaves, the others draw round him a circle, a so-called gart r-rma, and he has to remain inside it until he pays a fine (haqq or d'aira), after which the hunters surround him and make fatha. An offence which makes a hunter subject to this treatment on the evening after the hunt is the shooting or killing of a hare which is asleep, in which case he will have to give a feast to his companions; for both in Dukkala and elsewhere (Ait Waryager) a hunter must not kill a sleeping hare because it deprives his companions and the grayhounds of the pleasure of hunting it.

[369] Among the Ait Waryager, if one of the rrma has misbehaved, the others punish him when they are shooting at targets by filling the hood of his cloak with stones and compelling him to sit at a distance from them; and they do not remove the stones and admit him to their company until he has repeated the prayer for the Prophet a certain number of times, fifty or a hundred or more, according to their discretion.

844 [370] When a woman is going to give birth to a child, or if her delivery proves difficult, certain practices are often resorted to in order to facilitate it.

3: Hart E-5 (1953-1954)1954 MX3 Rif MX3



623
623 and the meeting breaks up in a battle. In this case the opponents form martial alliances, and the fight continues until one side has been defeated and made to pay indemnity to the other. Even when the council ends peacefully it takes at least a week before they reach an agreement» (14).

To his may be appended a short but very apt summation of the situation by Col. Blanco: «En el Rif, donde todos son personajes, sólo una política de masas y no de individuos puede ser fructífera» (15).

618
616
628 In the Rīf, up to the advent of 'Abd al-Karīm, the state of war was so permanent that it can truthfully be said that if is customary for Europeans or Americans to declare war, it was also customary for the Riffians to declare peace. We must remember that the *thārfiqth* was the unit of vengeance, and that feuds between *thārfiqīn* even within the same village were a commonplace. House-to-house fighting was the order of they day. If a feud kept going long enough, the result was that the other *thārfiqīn* in the same and in nearby villages eventually began to group themselves around either one of the two feuding parties, usually with the one which was closer kin to themselves. Thus we have the beginnings of a moiety organization, equivalent to the *ṣof* of the Kabyles of Algeria. If the members of one moiety gradually found themselves on the losing side, their representatives used to lead a bull to the mosque of a neutral village or *thārfiqth* the aid of which they desired, and the *faqīh* slaughtered it on the sill so that its blood spurted over the threshold. The fact that a bull was sacrificed whenever possible is significant in itself, as the Wuryāghlis
● [262] are very poor and largely vegetarians by force of circumstances; a bull is the most expensive edible animal they can buy. The act of sacrifice worked as a powerful shame compulsion (*'ār*), and forced the members of the second group into alliance with the first, whether they were willing or not. This type of alliance was called *liff*, as mentioned above, and as the feud grew in size, so did the *liff*. If the feud remained localized, alliances were usually made anew after it was over; but if it spread enough to involve whole «fifths», the traditional *liff* alignment of the two opposing moieties of Aith Yūsuf and Aith 'Alī came into play again. The clever manipulation of this

(14) Coon, 1931, p. 97.
(15) Blanco Izaga, 1939, p. 67.

627 very scarce and will soon give out altogether.

627 614 This period is that of smoothing over. Those responsible hide their possessions, assure (the ingharen) that they have nothing, only a goat and a cow and a tiny plot of land: this is all they can offer, along with their house. The rest had been mortgaged[30], etc. The ingharen, sure in their convictions, do not agree....The members of the victim's family deny having any more possessions.

The neighbors of those responsible for the crime who are also obliged to put up lodgers become impatient and denounce possible concealments. The ingharen continue without deciding, and then their buying begins. Finally a moment arrives in which they hear no more offers or denunciations of those responsible for the crime. All, including the coterie, grumble, become tired and begin to desert, finally going back 627 to their homes. The notables, satiated and fed up, see that this is 614 the time to stop in the struggle and investigations, because of what 613 they hurried to auction when it was taken over, the gross value of which they distribute equally among the lineages concerned in the [594] agreement, except for that of the man who violated it. This distribution, which the representatives of the lineages present parcel out among their lineage-mates, must in turn be parcelled out by the latter among the nuclear families, and by these among the members of each [262] family. And thus, one fine day, the ingharen and their numerous coterie, nourished with barley, bread, butter and hard-boiled eggs, abandon those places which they have left as clean as the palms of their hands; for Rifian notions of justice are now satisfied and the lineage responsible for the crime remains in misery.

628 After the fixing of the ddiyith[62], there is the most laborious
671 agreement and the most hurried need for its enforcement; and the rest
673 of the resolutions have no objective other than that of embellishing
681 this, establishing a graded scale in conformity with the external manifestations of lesser crimes, which the Rifians did not deem necessary to put down in detail in their qamms, in order to facilitate an easier mnemonic retention of the principal transgressions and resultant fines.

671 It points out theft with an admirable simplicity, according to
685 what is stolen, and it doubles the fine for a rustler of domestic
231 animals, a fact which follows the logical economic notion of the
556 Rifians of presenting such animals as the most esteemed source of wealth, as among nomad tribes.[63] It should be remembered that in the
178 old Rifian society, the consumption of meat was limited by the scarcity
262 of pasturage to Fridays, the holidays and by physiological needs, and
231 was regulated by the common sacrifice of animals and by compensating
224 hunts on fixed days.

If the meat supply diminished and they considered it indispensable, it would be completely natural to take precautions to pre-
685 serve it.....For precisely this reason the Rifians judged the theft of
673 animals as a greater crime than that of grains, and sanctioned it accordingly.

671 8. QANUN OF THE AITH KHATTAB[64] (AITH WARYAGHAR), ESTABLISHING THE WEDNESDAY MARKET, AND GENERAL QANUN

A) Qanun:

Praise be to the One God. When peace reigned (literally,

21. THE QANUNS OF HUNTING (RAYAH):[179]

224 619 The data which follow have been gathered principally among hunters from the tribes of the Ibuqquyen, Aith Hadhifa (Aith Waryaghar), Zarqat, Targist, Aith 'Ammarth and Aith (or Bni) Mazduci; and they can be considered as general hunting qanuns for the region.

A) Significance:

224 182 Hunting in the Rif was neither a sport nor a profession in the European manner. It was a physiological necessity, and it is still 134 considered so today. A poor soil, accidented and dry, rendered it 312 difficult for the tribesmen to utilize its scarce sources of water; 262 and the consumption of meat was limited, because of the scarcity of animals (i.e. both domestic and wild) to Fridays, feast days, days on which pacts were concluded, days of illness, etc., and to market 262 days. As the Rifian is by necessity a vegetarian[180], sacrifices of 782 animals acquire the status of a rite, and they form a fundamental ceremony in the most transcendental and important acts of his life. Peace and war, pacts, births and deaths, rogations, etc., have to be 224 sealed with meat for greater solemnity and efficacy. In hunting, 782 therefore, Rifian society finds a physiological compensation in no 182 way negligible to its sober life and ancestral appetite for meat, the sacrifice in common and equitable distribution of which is subject to strict rules[181], the object of the most rigorous tradition and fiscalization in order not to squander the slender reserves, which are 000 appraised in a manner unsuspected by European minds. The European visitor who is entertained in a Rifian household is not in a position to appreciate sufficiently the hospitality which is offered to him,

224 Not exacting responsibility from the party is based on the
672 fact that theft from beehives, for example, is not undertaken during
685 the hunting, for the following day any disagreement between the members of the party would denounce it; and because of this, when the hunt is over, whoever has the intention to do any stealing returns at night and without witnesses either to the hives or the fruit trees, the dis-
224 position of which he noticed during the day. For this reason the
672 accuser obliges the hunters to point out only those who passed in his neighborhood.

224 Perhaps in compensation for such damages, there exists another
183 Rifian custom of presenting in the houses any animals which, wounded and pursued, take refuge in the hedges of cactus surrounding the dwelling; they are decapitated and thrown into the house, or presented to the owners.

224 L) Taboos:

782 A Rifian's religion and system of beliefs[199] obliges him to
784 make a special ceremony in the sacrifice of animals (by cutting their throats), to abstain from eating certain unclean animals, dead flesh,
[751] etc. These, then, are the bases of certain hunting practices: not only to avoid sin, but to maintain a certain level of hygiene.

For this reason, a shot, a trap-setting, and an unleashing of a ferret or a saluki is always preceded by the invocation Bismillah r-rahman r-rahim, "In the name of God, the Merciful, the Compassionate".

262 The clansmen of the Aith Hadhifa do not eat animals decapitated
411 by stick or cudgel blows (nor do any other Rifians).

000 Animals caught in a trap which has been set with the Bismillah

Animals

224 262 782 783 caught in a trap which has been set with the Bismillah invocation must be eaten; but as, unfortunately, a mouse or some other ritually unclean animal might fall in, and as the owner of the trap would have to eat it, hunters prefer not to pronounce the invocation. They would prefer to wait until the next morning, trusting to luck to find the animal alive, if indeed it has not escaped from the trap.

The hunters must see the animals alive and pronounce the invocation in order to be able to eat them.

[231] For this reason, an animal caught by a dog, as well as one captured by a ferret, must be seen by the hunters in order that it be ritually permissible for them to eat. In the case of the ferret, if the animal turns up dead in its burrow and has not been seen previously by the ferret, it is also rejected, since death might have taken place earlier.

104 M) Vocabulary:

1) hunt, hunting--Arabic rayah, Rifian dhagimmarth, dhingimarth or dhingmarth
2) hunters--Arabic mruyah, Rifian igimmaren (sing. agimmar), or ingmarn (sing. angmar)
3) signal of game--Haw-haw-haw! (repeated)
4) hunting in company--shirka, shurka
5) signal for attention and flushing of game--L-'adaw!; and if the game in question is partridge--Birraw!
6) sticks--dhigharya (Iqar'qyen dhigharyin), sing. dhaghrith, in the Ibuqquyen and in all the Aith Waryaghar save the Aith Bu 'Ayyash and the Jbil, where a hunting stick is called r-mitrag and a walking stick dhqabut.

000 53--This is probably Aith Tizi, forming a part of the larger jma'th of Ighmiren, with Aith Fars.

54--Whether all the Aith 'Adhiya jointly sacrificed two bulls, or whether one each was sacrificed by the members of each liff is not indicated.

55--The market in question is the Monday Market of Aith Bu 'Ayyash.

[671] 56--In both this qanun and that of the Aith 'Abdallah we see how the fine for murder committed in the market is double that for murder elsewhere. Both qanuns also imply that not only must the fine be paid but that the murderer's house and crops will be burned as well. All informants from all over the Central Rif, however, said time and again that if the fine is paid, there is no houseburning. The root of the [735] discrepancy seems therefore to be an implicit assumption that the average murderer is too poor to pay the fine, which is in any event prohibitively high.

57--In some respects one can see what Blanco means here, but such a statement, particularly regarding the "superficiality" of Rifian Islam, is one which the Rifians themselves would hotly and vehemently deny. In their own eyes, they are extremely good Muslims!

[262] 58--Rifians tend to eat meat, as a rule, only on one day of the week: when they buy and bring it home from the market.

[114] [682] 59--Blanco here confuses the ddiyith, or blood money, to be paid to the victim's agnates, with the rhaqq, or fine for murder, to be paid (both payments being made by the murderer and his own agnates) to the council-members.

[682] 60--Blanco's point about 1000 duros being the fine for murder under normal circumstances (i.e. outside the market) and 2000 for murder inside it is very well taken; and, as he implies, these sums are indeed the norm all over the Rif. But once again, he confuses fines with blood-money, and they are entirely different.

61--Again, read rhaqq or fine.

62--Again, read rhaqq or fine.

[114] 63--This is an interestingly expressed idea, but the linkage with nomadism seems questionable.

[614] 64--As already indicated, the Aith Khattab include the two Waryaghar clans of the Aith Yusif w 'Ari and Aith 'Ari; and in this sense they might be considered a "super-clan", particularly if, as some have it (though this is nowhere indicated in the text of the qanum), they embrace the Aith 'Abdallah as well. In the same way, Aith Bu 'Ayyash, if it embraces, on the topmost level, the two clans of the Aith Bu 'Ayyash and Aith Hadhifa, may also be regarded as a "super-clan" of the same order of segmentation. However, the group in question is referred to as Bani Khattab, not Aith Khattab, in the text of the qanum.

65--As indicated, this qanum is valid only for the coastal Aith Khattab, those of both Aith Yusif w 'Ari and Aith 'Ari who live in and around the Plain of Alhucemas, bordering the Mediterranean.

243 While barley is the predominant crop, maize is an important secondary one. Wheat and rye are also grown but the latter is held in low esteem as a food product[1] and the former does not grow successfully on the thin residual soil of the region. In 241 [312] those areas where there are rivers or streams, small gardens are maintained by irrigation canals. In these are cultivated potatoes, tomatoes, onions, garlic, squash, turnips, green peppers and mint.

245 In addition to the grains, maize, and small vegetable gardens, many households also have orchards of fruit and nut trees. Fig, lemon, orange, pomegranate, walnut, almond, and olive trees are common. In some areas grapes are also cultivated. Around each house is a grove of prickly pears which serves not only as a means of preserving privacy, but also as a source of food. These products not only supplement and add variety to the regular diet but in the case of oranges, almonds [258] and grapes serve as cash crops. The olives are pressed by the [262] women to provide crude cooking oil. Nuts, dried grapes and figs [221] are an important winter food reserve. The work of pruning and grafting goes on during the months of February-March-April.

243 In early summer harvesting begins. Both men and women engage in this activity, the men doing the reaping with hand

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[829] [1]Coon (1931:47-48) states that rye is highly praised by the Riffian but that since the Arabs scorn it as a foodstuff the Berbers are ashamed to admit its worth.

585 221 available and the weather is most propitious for holding the giant outside wedding ceremonies common in the Central Rif.

221 241 After the wedding season, the cycle resumes and with the first autumn rains the land is ploughed anew for the next crop. [461] This process begins for most men when they are but 12 or 13, and continues with monotonous regularity until they die or become too enfeebled to do the work. Perhaps it is this unending sameness [777] which contributes to some of the fatalistic beliefs held by the tribesmen.

231 Although the Berber of the Central Rif mountains is primarily an agriculturalist, he also maintains a stock of assorted animals. Most families have a herd of goats, a few sheep, and some chickens. If the household has some wealth they will also have a cow and either a mule or donkey. Although livestock is [262] not the primary food source, it is a very important secondary supply, providing milk, butter, eggs, and meat. Livestock is [556] also an important source of material and social wealth and of [559] prestige. Animals serve as reserve capital on the hoof which [491] can be converted into hard cash at the weekly market. Perhaps 231 796 most important is the ritual value of animals. While grain is vital for subsistence there is very little social significance attached to it. On the other hand, while animals are secondary to subsistence they are the essence of the ceremonial and ritual life of the Riffian. There are practically no communal events,

585 574 262 The father of the groom provides meals and tea for all the guests at his home as well as at the house of the bride. The meal for the guests in even the humblest of homes consists of a course of cous-cous and a meat tajin. In most ceremonies there is also a poultry course. Enormous quantities of bread and tea are also served. The most accepted casual factor for [178] reducing the days of the wedding ceremony from seven as they were before Abdel Krim to two or three days as they are today was that the expenses of providing hospitality over such an extended period of time was ruinous to all but the most prosperous families.

585 574 571 Guests are likewise expected to incur various expenses. At this moment we need only note the recurrent support of a public ceremony which is expected throughout Berber society. All mature guests are expected to provide a quantity of barley, loaves of freshly baked bread, fresh fruit and vegetables, or a monetary equivalent. This tends to discourage, among the poor fellah, the presence of nonrelatives, because it represents an outlay which is not part of their residual social obligations. In addition, such attendance by a nonrelative imposes future obligations which, in only rare circumstances, they are willing to accept. By attending the wedding and taking part in the joining in matrimony of the couple, one gratuitously assumes the duty of attending the naming ceremonies for the infants of this union. Such acceptance of future responsibility is not normally accepted unless there is social advantage thereby.

Rif, such multiplicity of roles does not turn up empirically and we may proceed to regard the one as different from the other.

Of the large-scale sellers in the markets, the fish trade has become the most prominent, selling a commodity which, though cheaper than meat, serves as an important dietary item. Alhucemas has only recently become a prominent fishing port, currently rivaled by only Agadir on the Atlantic. The fishing occupation, while pursued by the Thimsamen and Ibuqquyen tribes for several centuries, has only recently been modernized. During the Spanish protectorate this activity was mainly in the hands of Spaniards but ever-increasing numbers from the two above tribes have entered into this occupation. The fishermen themselves do not market their catch but, after spending the night out at sea, bring the catch to the docks where middlemen bargain for it. These men, in turn, supply every market in the Central Rif with fish on the appropriate day of each market. Such an enterprise is usually carried on by a company of several men who band together to buy a truck and split the rewards in common. Prior to the building of roads this enterprise was conducted on a very small scale by entrepreneurs who traveled into the interior on mules. At present the activity has picked up to the extent that every market gets two or three loads of fish, mainly sardines which are the cheapest fish available and take the place of meat in the diets of the poor.

Another group of large-scale sellers who come to the local <u>suqs</u> are the barley merchants who purchase grain in the richer

443 province of Nador, where barley is relatively cheap, in order
442 to sell in the Rif, which seldom produces enough to meet local
438 needs. The barley is stacked in huge piles of loose, unground seed which is purchased in relatively small lots to be taken back to the mountains and ground for bread or left in seed form to feed the livestock. The barley is measured and
[565] weighed by a member of the imziren class, who loudly cries out the current price of barley in the market. The merchants themselves sit under nearby shade trees, accepting the coins from their criers and listening to the competition.

442 In addition to these large-scale sellers, there are the
439 large-scale buyers, who resemble the large-scale sellers in all particulars except their immediate function in the market. Among this group are the egg merchants who buy the tiny lots of a myriad fellah in order to transport them to the urban centers of Tetuan or Fez. Another group of buyers are the almond merchants who purchase the Riffian's supply to market abroad, usually in France, to cosmetic companies which transform them into face oils and hand lotions. There are also
[245] merchants of oranges who supply the canned juice industry,
[262] and grape buyers who purchase the indigenous supply (used locally by the Berbers as a winter reserve in the form of raisins) for the wine industry located in central Morocco.

7: Mikesell K-4,5 (1955-1957) 1961 MX3 Rif MX3



Palmetto is exploited for its edible bud, and the old women who sell *ghaz* (palm cabbage) are a common sight in the streets of Tetuán and Tangier. During the summer, when cereal stocks are low, many families spend some time digging up palmetto.

Palmetto is exploited also for its fiber, used in the manufacture of *crin végétal*. The collecting is done by women, who deposit bundles of palm blades near scales set out along most of the roads. The fiber is dried in the sun, and then twisted into loose rope and baled for marketing. The finished product serves as a substitute for horsehair in upholstering. In 1955, exporters in the northern zone handled 12,622 tons of fiber.[20] Native craftsmen make hats, mats, and baskets of the same material.

Disturbance of this sort encourages lateral development rather than tall growth from a single stock, but seldom results in destruction of the plant.[21] The resiliency of palmetto is attested by its persistence in cultivated fields. The native farmer has no means of eradicating the deep roots of this plant. Fields are burned and then cleared with hoes and cutting tools. This practice eliminates most shrubs, but it does not destroy palmetto. On the contrary, this plant, as a deep-rooting and heliophilous species, profits from the removal of competitive growth. When fields lie fallow or are abandoned, dwarf palm promptly begins to colonize.[22] In relatively undisturbed formations the palmetto is of secondary importance. It is not conspicuous, for example, in mature stands of cork oak. On sacred sites palmetto is usually found on the edges of the protected growth. Where shrub vegetation is especially dense, as it is along the Mediterranean coast from Wad Lao to Puerto Capaz, dwarf palm grows on sunny south-facing slopes and on the upper edges of stream channels. Pure stands of palmetto seem to indicate floristic and morphologic impoverishment, a reduction of vegetation to its most resistant element.

*Pistacia lentiscus* (Arabic *dro*) is the second most important element of palmetto scrub. As with dwarf palm, it may be doubted that this plant should be described as a shrub. *Dro* usually appears as a shrub about one meter high, but where soils are deep and plants protected, it may grow three to five meters high. Such trees are rare today. With the exception of a few specimens scattered in the Anjra hills northeast of Tetuán, I have seen tall pistacias only on sacred sites and in a few areas protected by fences. In one form or the other this plant is encountered as an element of maqui in most of the Mediterranean region. It is found almost everywhere in Morocco; only in areas of extreme aridity and in the mountains above 1,500 meters is it absent. *Dro* is mixed with *Zizyphus lotus* in the Nkour

[20] *Marruecos, zona jalifiana: guía económica* (Tetuán: Delegación de Economía, 1955), p. 59.

[21] The ability of the palmetto to survive disturbance is recognized by Theophrastus (*Enquiry into Plants* . . . , II, 6): "The dwarf-palm is a distinct kind, having nothing but its name in common with the other palms. For if its head is removed, it survives, and, if it is cut down, it shoots again from the roots." Louis Emberger concludes, in *Les Arbres du Maroc et comment les reconnaître* (Paris: Larose, 1938), p. 76: "Cette forme naine est déterminée par l'action continuelle des troupeaux, qui broutent les jeunes pousses, et de l'homme qui exploite le Palmier nain pour en faire des cordages et consummer le cœur." M. Rikli, "Marokko," *Vegetationsbilder*, 24, Heft 4/5 (1934), concurs in this judgment, and adds that the prevalent form of the palmetto "als fuss- bis kniehohes Hartlaubgestrüpp ist sekundär, durch anthro- und zoogene Einwirkung entstanden."

[22] According to Louis Emberger, *Aperçu général sur la végétation du Maroc* (Bern: Hans Huber, 1939), p. 150, "son expansion est le résultat de la destruction des forêts dans lesquelles il était un élément floristique constant." G. Kuhnholtz-Lordat, *La Terre incendiée: essai d'agronomie comparée* (Nimes: Editions de la Maison Carrée, 1939), p. 44, coins a new verb, *endoumer*, the process by which forests degenerate to thickets of *doum*.

7: Mikesell K-4,5 (1955-1957) 1961 MX3 Rif MX3



delta, but it becomes progressively rarer toward the eastern semiarid sector of this zone. Pistacia wood is highly prized as a source of charcoal, and this fact alone may explain the plant's degraded appearance in the hills south of Tangier.

Pistacia rarely forms a pure stand. Several of the other plants found in palmetto scrub could be described as weeds, for they appear mainly in fallow fields. *Asphodelus microcarpus, Urginea maritima, Daphne Gnidium,* and one or more species of *Asparagus, Ononis,* and *Papaver* are prominent among them. In areas where most of the surface is cultivated, as in the Fahs territory south of Tangier, these plants, together with thistles and scattered clumps of palmetto, constitute all but a small part of the total inventory of vegetation. On rocky knolls and alluvial slopes too steep for cultivation, these plants grow among *Pistacia, Calycotome, Lavandula,* and the oleaster. The percentage of thorny plants is high. Besides *Calycotome* and thistles, *Carduus, Smilax,* and *Rosa* are found.

Dense shrub formations are rarely seen on the thickly settled Atlantic versant. One may walk unimpeded anywhere in the zone bounded by the Atlantic coast, Tangier, and Ksar al-Kebir. The thick shrub growth on the Mediterranean coast near Wad Lao contrasts sharply with the open formations on the Atlantic littoral. In the former area, *Cistus ladaniferus, C. albidus, Erica arborea, Pistacia lentiscus,* and *Arbutus Unedo* combine to form an impenetrable thicket. The limestone mountains of northern Morocco are almost bare of shrub or tree growth. From Ceuta to Wad Lao the eastern horizon is dominated by a great wall of limestone, almost completely devoid of soil. The prevalent whiteness is disturbed only by scattered clumps of palmetto and spiny gorse (*Ulex parviflorus*).

In the area covered by palmetto scrub the persistent riparian plant is the toxic *Nerium oleander.* It may be accompanied by *Crataegus, Myrtus,* and *Arbutus,* but in most of northwestern Morocco the oleander is the only plant on the banks of streams. The presence of *Alnus, Populus, Salix,* and *Vitex* along stream channels in the Sanhajan highlands may be explained by the persistence in that area of other trees, especially cedar, juniper, and oak, which have been adequate thus far as a source of fuel and building material.

In the drier eastern sector of northern Morocco, palmetto scrub grades into a thorn scrub dominated by *Zizyphus lotus,* a spiny and xerophytic member of the buckthorn family (Rhamnaceae). It is difficult to draw a line between these two formations. Isolated clumps of palmetto are found as far east as the Moulouya Valley, and zizyphus extends up the valley of Wad Ghis as far as Targist.

Well adapted to aridity and continentality, *Zizyphus lotus* has become the dominant plant of Morocco's semiarid plains. Clumps of zizyphus are conspicuous within most of the area mapped as thorn scrub. This plant may grow three meters high, but is most often seen as a shrub. It is deciduous; and, during the dormant winter season, gray and seemingly lifeless clumps of zizyphus are a characteristic feature of the landscape. Its branches are widely used as fence material, and this practice enhances the contrast between the semiarid sector of northern Morocco and the wetter western zone, where *Opuntia* is planted as a hedge. The fleshy drupe of zizyphus is collected wherever it grows; when cereal stocks are exhausted, "lotus bread" is an important food."

" *Zizyphus lotus* is occasionally planted in Andalusia, Portugal, and Sicily, but in northern Africa the fruit is collected from wild plants. Aug. Chevalier, "Les jujubiers ou zizyphus de

7: Mikesell K-4,5 (1955-1957) 1961 MX3 Rif MX3



sive pilgrimages to the tombs of both Mulai Idris and Mulai Abd al-Salam are equal to one to Mecca.[11] The fast of Ramadan is strictly observed even in the remote highlands, but many Berbers are extremely casual about prayer, and the idea of almsgiving, in the sense of an income or head tax, was never accepted by free tribes. On the other hand, most tribes promptly accepted the Qur'anic distinction between what is *halal* (clean, or permitted) and *haram* (unclean, or forbidden). Thus carnivorous animals and birds of prey were excluded as food, and also eels and mackerel, since they were supposed to be unclean feeders. Consumption of wine ceased, although vineyards are still numerous and raisins are an important food. A generation ago the Berbers probably hunted the wild boar and may even have kept domestic pigs, but there is evidence that the latter practice continues.[12]

There is nothing blind or unreasonable about Berber conservatism. Once the value of an innovation has been established, it is accepted without reservation. Berber agriculture today is a blend of crops and methods derived from diverse contacts during millennia. Some of the contributions of the Arabs are easy to discern; others are not. The Romans and Phoenicians both contributed to North African skill in irrigation, but the Arabs added refinements in technique.[13] It is not known whether the Arabs or the Romans introduced the Persian system of underground infiltration tunnels (*foggara*), but the Arabs seem to have brought this system to Spain.[14] It cannot be asserted that the Arabs introduced the date palm, for there is reason to believe that palms were cultivated in the Fezzan in classical time.[15] The Latin name for the pomegranate, *Malum punicum* (apple of Carthage), suggests that it was cultivated in northern Africa long before the Arabs arrived. Barley and wheat, the basic cereals, were cultivated before the arrival of the Phoenicians. The Arabs may have been responsible for the introduction of hard wheat (*Triticum durum*), which is still used for semolina. *Triticum dicoccum* has been found in the Roman ruins of Timgad and Djemila.[16] The ubiquitous wheat at present is *T. aestivum*. The initial dispersal of rye seems to have been as a weed in wheat fields, and it was probably carried to northern Africa by the Phoenicians or the Romans. Sorghum was cultivated in eastern and west-central Africa in Neolithic time. The races of sorghum now cultivated in Morocco (*Sorghum vulgare ssp. dura* and *ssp. cernuum*) presumably originated in Egypt or the Upper Nile; it is not known when they arrived in Barbary. The introduction of barley may have taken place in prehistoric time, perhaps when the Berbers themselves arrived. The Arabs may have been responsible for new dispersals of the dromedary (which had been brought to Tunisia by the Romans), but the other domestic animals were known throughout northern Africa in Neolithic time.

Thus the basic elements of north African agriculture were already present

[11] D. M. Hart, "An Imarah in the Central Rif: The Annual Pilgrimage to Sidi Bu Khiyar," *Tamuda*, 4 (1957), 239–245.

[12] Coon, "Tribes of the Rif," p. 41, cited in note 4.

[13] The Spanish word for "irrigation ditch," *acequia*, shows little change from the Arabic *al-saqiyah*.

[14] G. B. Cressey, "Qanats, Karez, and Foggaras," *Geog. Rev.*, 48 (1958), 27–44.

[15] Herodotus, *History*, IV, 183. See also Aug. Chevalier, "Les productions végétales du Sahara," *Revue de Botanique Appliquée et d'Agriculture Tropicale*, 12 (1932), 711 ff.

[16] André Haudricourt and Louis Hedin, *L'Homme et les plantes cultivées* (4th ed., Paris: Gallimard, 1943), p. 115.

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Jebala MX2
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tradition that rye could be grown on unclaimed land, beyond the reaches of ordinary agriculture.[8]

Hunger or plenty depends largely upon the success or failure of the cereal crop. Tree and garden crops supplement but never supplant the cereals. The most important secondary crops are from fruit and nut trees, which are especially numerous in the western part of the Rif. The most important are the olive, pomegranate, fig, and walnut. Apples and plums are grown by some of the highland tribesmen, who graft them on hawthorns. At lower elevations, especially on south-facing slopes, orange, peach, and apricot trees are occasionally seen.

Dried figs and raisins are second only to the cereals as staple foods. The importance of the trees is indicated by the complicated pattern of their ownership. On a given farm, all the trees may belong to an outside party, perhaps the former owner of the land who refused to relinquish title to his trees. One tree may be owned by several people in partnership, and sometimes different people own different branches, or claim parts of the crop on the ground. At one time the Rifians seem to have used grapes or other fruits to make fermented beverages, for Leo Africanus describes them as being "so excessively given to drink, that they scarcely reserve wherewithal to apparel themselves."[9]

Irrigated plots in the valleys of Wad Ghis and Wad Nkour produce broad beans, chickpeas, potatoes, onions, tomatoes, peppers, carrots, turnips, and squash. Add eggs, and an occasional feast of mutton or goat meat, and you have the main ingredients of the Rifian diet. In recent years fish have been brought in from Alhucemas to the principal rural markets. Fish are regarded as a delicacy, and are usually fried and eaten in the market place.

West of the Rif the dietary situation improves, but it becomes more hazardous toward the east. This distinction is based on the differences in precipitation and runoff. In the eastern lowlands, precipitation is too meager for vines and figs, and extensive irrigation is possible only in the valleys of Wad Kert and Wad Moulouya. The tribesmen of Garet suffer from acute want in any unusually dry year, and most adults remember at least one famine. Garet and Gal'aya are northern Morocco's main areas of emigration.

In the Sanhajan highlands and in most of Ghmara and Jbala, each hamlet has a reliable source of irrigation water. The main irrigated crops are maize, beans, and squash. The planting of beans between the rows of maize may indicate an unformulated appreciation of the value of pulses as restorers of the nitrogen content of the soil. Perhaps not; for the plants in this New World combination seem to have been introduced as one complex by Andalusian refugees.

In most of the central highlands, and especially in Sanhaja as-Srair, *kif*, or hemp (*Cannabis sativa*), is an important cash crop. It is grown under irrigation during the summer, and is usually planted and harvested at about the same time as maize. After it has been reaped, the stems of the plant are submerged in a stream and held down with stones. After two or three days of soaking, the fibers are separated and used to make cord, mats, and baskets.

Traveling from the central highlands toward the Atlantic lowlands, one notes

[8] C. S. Coon, "Tribes of the Rif," *Harvard African Studies*, 9 (1931), 47–48.

[9] Leo Africanus, *The History and Description of Africa* (London: Hakluyt Society, 1896), II, 516.

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more important at that time than it is today. In chapter vii evidence will be presented to show that the same coastal area was once an important center of shipbuilding.

Fresh-water fishing seems to be restricted to a few streams in the mountains of Ghmara and Sanhaja as-Srair. The Sanhajans make use of the toxic roots of *Daphne Gnidium* (Arabic *mat'nan*) to stun fish, a practice that has been observed also in Sardinia, Portugal, and Spain.[90]

## Utilization of Wild Plants

The average Moroccan woman can identify at least a hundred plants, and many are thought to have medicinal or magical qualities. To cure an ear infection, the ear is plugged with a mixture of butter and the ground leaves of *Ruta Montana*. The cure for a cold is to induce sweating by drinking milk or tea heavily seasoned with *Mentha pulegium*. A wound is cleaned with the leaves of *Inula viscosa*, and the leaves of other plants are worn under headgear to cure or prevent headaches, or in slippers to reduce fatigue. The number of similar ideas is limitless.

Many wild plants have food value, and are collected even when regular harvests are bountiful. The list of such foods includes the seeds of several species of *Cistus* (*C. albidus, C. laurifolius, C. ladaniferus*), the sweet acorn of *Quercus Ilex*, the fruit of *Arbutus Unedo*, the roots of *Halimium lasiocalycinum*, and the berries of *Rubus ulmifolus* and *Crataegus laciniata*. Moroccans eat the bud of the palmetto. Acorns and *Cistus* seeds seem to be the most important famine foods.

## Markets

It would be a mistake to conclude that rural communities in northern Morocco live in complete isolation. Moroccans are fond of travel, and the men, at least, have some time to satisfy their wanderlust each year. There are few men, even in the remote highlands, who have not visited at least one city. But when a Rifian or Sanhajan sets out for Fez or Tetuán he is likely to be more interested in sightseeing than in shopping. He may bring back a new cloak for himself or a piece of costume jewelry for his wife, but more often returns only with accounts of strange sights and tales of adventure.

A rudimentary system of trade does exist. A few manufactured articles are found in most homes, and some communities produce marketable goods. For example, the village of Mediuna, just south of Cape Spartel, is engaged in quarrying millstones from the Caves of Hercules.[91] Here they find a gritty conglomerate that is ideal for milling. The *m'allimin* (masters) who hew out these stones transport them on muleback to Tangier, whence they are traded throughout northern Morocco. Rifian women spend some time making pottery. During the idle months of winter, after the cereals have been harvested, Rifian men work on mats and baskets. Leatherwork is done at Taghzut, and winnowing forks are made at Ktama. Yet none of these activities seriously disturb the subsistence orientation of rural life. Specialization of this sort supplements but never supplants agriculture. The abiding concern of all tribesmen is with their fields.

[90] R. F. Heizer, "Aboriginal Fish Poisons," *Smithsonian Inst. Anthro. Papers*, 38 (1953), 263.
[91] C. S. Coon, *The Seven Caves: Archaeological Explorations in the Middle East* (New York: Alfred Knopf, 1957), p. 45; E. Cecil Curwen, "Tangier Quern-Quarry," *Antiquity*, 119 (September, 1956), 174 and plate VII.

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[Village of Ulad 'Abd al-Mumin]


had died by the rifle, and many of their brothers as well. Some provision must be made for young widows and their helpless children. To the human population of fifty-seven was added an animal roster of one hundred and twenty-five head: 10 cows, 1 calf, 15 sheep, 80 goats, 1 donkey, 2 mules, and 16 dogs. Six of the men owned the goats, and one the sheep; three men had none. Each man, however, owned a cow, for all needed milk.

There were a total of 923 food-bearing trees—more than 16 to a person, or 92 to a family. These were divided as follows: almonds, 525; figs, 272; olives, 71; pomegranates, 33; apricots, 16; oranges, lemons, and walnuts, 2 of each. Every man owned at least 4 almond, 15 fig, and 3 olive trees. Dried almonds and figs are absolutely necessary to sustain life in late winter once the grain has been eaten, while olive oil is the essential fat. The other kinds of trees produce useful fruits, but the Riffians can get along without them.

In these high valleys arboriculture is the main business of the people, and they prune, water, graft, and fertilize their trees with extreme care. Compared to this activity the Riffian spends but little time in his fields; he owns enough tillage for only about four weeks' plowing time a year, with a range of from twenty to forty-five days among the ten men. Those who have little are hired to work for those who have more, on the ancient system of granting a fifth to the plowman. Work on the vegetable gardens rates a fourth, while he who cares for another man's trees receives a third of the fruit, aside from windfalls which are for women, children, and the poor.

Unfruitful trees have long ago been felled to make way for the silver-leaved olives and the lofty walnuts. Up high on the ridges to either side one can still cut cedar and even a few pine. Below the man-made tree line is a zone of brushy goat pasture, and below this, but still steep, the vineyards. Here the families gather in September to pick the grapes, which they dry into raisins to be eaten with the figs and almonds. Up the valley a way there are two public installations, a small turbine water mill of familiar appearance, which belongs to the grandsons of its builder, and an olive press, which serves several villages. This olive press is actually near the center of another village, inhabited by holy people who never fight. Their holiest member regulates the protocol of olive pressing, aside from serving as imām to lead the Friday prayer, in which the grown men of all the villages of that part of the valley participate.